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Checklist of the aphyllophoraceous fungi (*Agaricomycetes*) of the Brazilian Amazonia

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Abstract — A literature-based checklist of the aphyllophoraceous fungi reported from the Brazilian Amazonia was compiled. Two hundred and sixteen species, 90 genera, 22 families, and 9 orders (*Agaricales*, *Auriculariales*, *Cantharellales*, *Corticiales*, *Gloeophyllales*, *Hymenochaetales*, *Polyporales*, *Russulales* and *Trechisporales*) have been reported from the area. A summary of the data in the checklist is presented here and the checklist is available at http:/www.mycotaxon.com/resources/weblist.html.

Key words — macrofungi, neotropics

Introduction

The aphyllophoraceous fungi are currently spread througout many orders of *Agaricomycetes* (Hibbett et al. 2007) and comprise species that function as major decomposers of plant organic matter (Alexopoulos et al. 1996).

The Amazonian Forest (00°44'–06°24'S / 58°05'–68°01'W) covers an area of 7×10^6 km^2 in nine South American countries. Around 63% of the forest is located in nine Brazilian States (Acre, Amazonas, Amapá, Pará, Rondônia, Roraima, Tocantins, west of Maranhão, and north of Mato Grosso) (Fig. 1). The Amazonian forest consists of a mosaic of different habitats, such as open ombrophilous, stational semi-decidual, mountain, "terra firme," "várzea" and "igapó" forests, and "campinaranas" (Amazonian savannahs). Six months of dry season and six month of rainy season can be observed (Museu Paraense Emílio Goeldi 2007).

Even with the high biodiversity of Amazonia and the well-documented importance of aphyllophoraceous fungi to all arboreous ecosystems, few studies have been undertaken in the Brazilian Amazonia on this group of fungi (Bononi 1981, 1992, Capelari & Maziero 1988, Gomes-Silva et al. 2008, Jesus 1996, Martin-Júnior et al. 2008, Sotão et al. 1997, 2002, 2008). This work aims to contribute to the knowledge about the diversity of the aphyllophoraceous

Figure 1. The nine Brazilian States (Acre - AC, Amazonas - AM, Amapá - AP, Pará - PA, Rondônia - RO, Roraima - RR, Tocantins - TO, west of Maranhão - MA, and north of Mato Grosso - MT) where the Brazilian Amazonia is found.

fungi in this high diverse biome by compiling and updating the nomenclature of published records of aphyllophoraceous fungi from the Brazilian Amazon.

Material and methods

All available publications with records of aphyllophoraceous fungi (*Agaricomycetes*) collected in the Brazilian Amazonia were examined. The reports were compiled and the nomenclature of the listed species were checked against and — when necessary— updated following the classification of Index Fungorum (http://www.indexfungorum.org/Names/Names.asp) and CBS (http://www.cbs.knaw.nl/databases/). Taxa with unresolved nomenclature according to the consulted databases and those lacking neo- or pantropical distributions were excluded. The occurrence and distribution of the species in Brazilian states were recorded. The checklist is organized in alphabetical order by families, genus, and species.

Results and discussion

Currently, 216 species of aphyllophoraceous fungi previously recorded from the Brazilian Amazonia are included in the checklist. These species are at present distributed in 90 genera, 22 families, and 9 orders (*Agaricales*, *Auriculariales*, *Cantharellales*, *Corticiales*, *Gloeophyllales*, *Hymenochaetales*, *Polyporales*, *Russulales* and *Trechisporales*). *Polyporales* has the higest number of species (144), families (7), and genera (61). Among the families, *Polyporaceae* is the most species rich (79), followed by *Hymenochaetaceae* (32), and *Meruliaceae* (29). *Botryobasidiaceae*, *Cantharellaceae*, *Corticiaceae*, *Cystostereaceae*, *Meripilaceae*, *Peniophoraceae*, *Schizophyllaceae* and *Schizoporaceae* are each represented by one species. Among the genera, *Amauroderma* (16), *Phellinus* (15), *Trametes* (14), *Hymenochaete* (8), *Polystictus* (7), *Ganoderma* (7), and *Podoscypha* (7) have the highest number of species. *Phellinus gilvus* (Schwein.) Pat. and *Earliella scabrosa* (Pers.) Gilb. & Ryvarden have been recorded in all states of the Brazilian Amazonia. The State of Pará is represented by 126 species (58%), with 53 exclusive to the State. The State of Amazonas has 86 reported species (35 exclusive) and 35 species were recorded from the State of Roraima (15 exclusive). The states of Rondônia and Acre recorded 48 and 28 species respectively, each with 7 exclusive species and the states of Mato Grosso and Amapá recorded 36 and 23 species respectively, each with 6 exclusive species. Of the excluded species, all of which should have their exsiccates reviewed, 22 were excluded due to their non neo- or pantropical distribution and 65 due to nomenclature uncertainties according to the consulted databases.

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